Lornex

LORNEX MINING CORPORATION LTD.
ANNUAL REPORT 1970

LORNEX MINING CORPORATION LTD.

OFFICERS	Honorary Chairman	E. H. LORNTZSEN
	Chairman of the Board	R. W. WRIGHT, CBE
	President and Chief Executive Officer	R. D. ARMSTRONG
	Vice-President	G. R. ALBINO
	Vice-President	N. F. WARREN
	Treasurer	J. VAN NETTEN
	Secretary	C. W. M. BURGE
DIRECTORS	G. R. ALBINO, Port Credit, Ont. W. A. ARBUCKLE, Montreal R. D. ARMSTRONG, Toronto W. P. ARNOLD, Toronto E. B. GILLANDERS, Surrey, B.C. N. B. IVORY, Montreal K. KAWAKAMI, Tokyo, Japan E. H. LORNTZSEN, Vancouver J. A. SADLER, Toronto J. H. SMITH, Toronto R. W. WRIGHT, CBE, London, England	
HEAD OFFICE	580 Granville St.	Vancouver
PROJECT OFFICE	465 Victoria St.	Kamloops
PRINCIPAL BANKERS	Canadian Imperial Bank of Commerce	Vancouver and Toronto
	The Toronto-Dominion Bank	Toronto
	Bank of Montreal	Toronto
SOLICITORS	Clark, Wilson & Company	Vancouver
	Fasken & Calvin	Toronto
AUDITORS	Coopers & Lybrand	Vancouver
REGISTRAR AND TRANSFER AGENT	National Trust Company, Limited	Vancouver
SHARES LISTED	Vancouver Stock Exchange	
THE ANNUAL GENERAL MEETING	10:00 a.m., Tuesday, April 20, 1971 Hotel Vancouver, Vancouver, British Columbia	

Lornex

DIRECTORS' REPORT TO THE SHAREHOLDERS

Your Directors are pleased to submit this report on the development and construction of the Company's copper-molybdenum mine in the Highland Valley area of British Columbia and the Company's financial position for the year ended December 31, 1970.

Certain amendments to the financing and related agreements, which are summarized in the accompanying Information Circular, were approved by the Directors on July 6, 1970. On July 31 it was announced that the Japanese Government had approved the amended Sales Contract and Japanese Financing Agreements. The financing and related agreements were approved by the Shareholders of the Company at an Extraordinary General Meeting called for that purpose and held on August 14, 1970.

The agreements approved at this meeting included a Construction and Management Agreement between Lornex and Rio Algom Mines Limited whereby Rio Algom agreed to assume responsibility for the construction of the Lornex Project and to supervise and manage the business of Lornex both during construction and thereafter for a period of at least 15 years from December 1, 1969.

DEVELOPMENT AND CONSTRUCTION

Although delays in the start of construction resulted from the introduction of the Minerals Processing Act and from other outside factors, preparatory work had been carried out since 1969 and permitted development and construction work to begin immediately following approval of financing and related agreements on August 14, 1970. The preparatory work comprised engineering and construction planning for the open pit, the process and ancillary facilities, crusher, concentrator and service buildings, tailings and water systems, conversion of mineral claims to leases and the acquisition of various land parcels and rights-of-way for tailings, water supply, waste disposal and the townsite. Senior managerial staff had been assigned to the project by Rio Algom and a considerable amount of equipment had been ordered. It was thus possible to undertake full-scale development and construction immediately.

Open Pit Development

Preparation of the open pit for production, involving removal of overburden, oxide ore and waste rock is being carried out by Lornex with equipment that will subsequently be used for production. The principal pit production units will comprise twenty-two 120 ton trucks and four 15 cubic yard electric shovels. Twelve trucks and three shovels were in operation at the end of the year. A total of 4,200,000 tons of material had been removed by that time and despite unusually severe winter conditions the schedule necessary to remove the currently estimated total of 47,000,000 tons of pre-production material has been substantially maintained.

Engineering and Construction of Process and Ancillary Facilities

With the exception of the tailings dams and the townsite, this work is being undertaken by Stearns-Roger (Canada) Limited as designer and construction manager. Engineering design was approximately 50% complete by year-end.

Construction has been hindered somewhat by the unusually severe winter conditions. Protective coverings are being utilized to enable concrete work to proceed during the winter months.

The construction camp is operational and the permanent mine camp is being installed. The Lornex mine employees are being accommodated in temporary quarters previously used during the bulk sampling and pilot plant phase of the Lornex Project.

Crusher, Concentrator and Service Buildings

The major part of the site excavation for these areas has been completed. Concrete has been poured for part of the crusher foundation and the building footings have been poured for the pit service building, pit office building and the main office building. Site service piping was approximately 50% complete by year-end. Pending completion of the pit service buildings, the pit equipment is being serviced in a temporary building.

Tailings and Water Systems

It had been expected that other mining companies in the Highland Valley would participate in the joint development of tailings and water systems on a shared cost basis. Since the other companies have not taken a final decision to proceed with the development of their mining projects, Lornex is developing these systems independently. Previously signed agreements provide for the participation of these companies at a later date, and if they do participate, Lornex will recover a pro rata share of the capital cost of the water intake portion of the water system and of the tailings area development.

The required pollution control permit has been issued by the authorities for the tailings disposal system. A contract has been signed with Canadian Bechtel Limited for the engineering and construction management of the main tailings starter dam. Relocation of the electric power transmission line and the highway which at present run through the tailings basin is being worked out in conjunction with the appropriate authorities.

Make-up water for plant requirements will be drawn from the Thompson River through a pipeline approximately 16 miles long. The system has been designed for a capacity of 6,000 gallons per minute and will be built during 1971. Applications have been made for the required Government approvals and the pipeline right-of-way has been located.

Townsite

It was decided to build a town at Logan Lake situated eleven miles from the mine and some forty miles from Kamloops because existing communities are situated too far away for daily travel to the mine site. Development of the townsite is proceeding on schedule and construction of the first 100 houses will be completed by mid-1971. These houses are for Lornex employees. A second phase is now being planned.

The town has been incorporated under the Municipal Act of British Columbia and a town council of five Lornex employees appointed to serve until 1973 at which time the town will have been completed and elections will take place. A policy has been developed with the objective of encouraging employee ownership of homes but employees will not be required to live in Logan Lake. The townsite is not restricted to Lornex employees and residence by others will be encouraged.

PROJECT COST

Previously it was reported to you that because of delays in start-up from that envisioned in the October, 1968 Bechtel Project Evaluation and certain other factors the financial requirements of Lornex were expected to exceed the original

estimate of $123.6 million by 6% to 8%. Based on the definitive engineering completed to date, it is estimated that $133.0 million will be required to bring the mine into production. The increase in cost has occurred because of delays in the start-up of construction, the unusual degree of cost escalation experienced (which was accentuated by the delay in the start-up of construction), the complexity of the tailings disposal system, the need to comply with more stringent pollution regulations and the deferral of participation by other mining companies in the development of the tailings and water systems.

Capital expenditures for the year were $23,870,000 and total capital expenditures on the project to December 31, 1970 including accrued interest, financing expenses and exploration expenses were $34,121,000. Development and construction commitments at December 31, 1970 were approximately $15,700,000.

FINANCING

On September 29, 1970, Rio Algom and The Yukon Consolidated Gold Corporation Limited purchased Units consisting of Income Debentures and Class A or common shares of the Company for $23.6 million.

On November 18, 1970, a Japanese consortium purchased Units consisting of Notes and common shares of the Company for U.S. $10.0 million, and on January 27, 1971 Units were purchased for an additional U.S. $10.0 million. A further purchase of Units for U.S. $6.5 million is to be made under the terms of the agreement with the Japanese consortium.

Under a bank loan agreement three Canadian banks are to provide a total of $60.0 million. A maximum of $4.0 million is to be provided by Central Mortgage and Housing Corporation and Canadian banks. Further funds required may be provided, in whole or in part, by Rio Algom under the Construction and Management Agreement.

Organization

Rio Algom appointed Mr. N. F. Warren as Lornex Project Manager and in this capacity he has senior responsibility for construction of the project and operation of the mine.

Mr. Warren was appointed a Vice-President of Lornex on December 7, 1970.

APPRECIATION

The Directors of the Company appreciate the dedication and co-operation of all parties participating in the Lornex Project. As a result, the necessary amendments to and approvals of the formal documents previously signed in 1969 were concluded in August, 1970 and construction was able to proceed immediately.

We offer our thanks to the many shareholders for their confidence and support, and to the employees of Lornex and Rio Algom for their performance during the year. Many of the employees contributed a great deal of extra time and effort to help make the Lornex mine possible.

On behalf of the Board

Vancouver, B.C.,
February 22, 1971

R. D. ARMSTRONG
President


Lornex

Giant electric shovel removes overburden in 15-ton bites as the Lornex mine is prepared for production. The overburden is carried from the pit in 120-ton capacity trucks. Lornex will begin deliveries in 1972 under a sales contract for the mine's total output of copper in concentrate for a period of 12 years.

Because existing communities are too far from Lornex, the company is building the town of Logan Lake on the banks of a small lake of the same name, some 11 miles from Lornex. In photo at lower right, Hon. P. A. Gaglardi (left), in whose constituency Logan Lake is located, and Mayor John G. Aldrich, the community's first mayor, look over model of town. First 100 homes are expected to be completed in the summer of 1971.

Auditors' Report

To the Shareholders of
Lornex Mining Corporation Ltd.:

We have examined the statement of financial position of Lornex Mining Corporation Ltd. as at December 31, 1970, and the statements of exploration, development and construction expenditures, premium less discount on shares issued for cash and source and disposition of funds for the year then ended. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

In our opinion these financial statements present fairly the financial position of the company as at December 31, 1970 and the results of its operations and the source and disposition of its funds for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Vancouver, British Columbia.
February 15, 1971

COOPERS & LYBRAND
Chartered Accountants

LORNEX MINING CORPORATION LTD.

(Incorporated under the laws of British Columbia)

Statement of Financial Position

DECEMBER 31, 1970

($000's omitted)

	1970	1969
CURRENT ASSETS:		
Cash	$ 154	$ 60
Short term investments, at cost, and deposits	11,752	601
Accounts receivable	48	29
Total	11,954	690
Less:		
CURRENT LIABILITIES:		
Accounts payable and accrued liabilities	488	364
Due to affiliated and associated companies	1,479	131
Total	1,967	495
WORKING CAPITAL	9,987	195
Plant and equipment at cost less accumulated depreciation (note 2)	8,306	1,375
Construction in progress at cost (note 2)	10,897	—
Mining properties and preproduction expenditures at cost (note 2)	14,918	8,876
	34,121	10,251
TOTAL ASSETS LESS CURRENT LIABILITIES	44,108	10,446
Deduct:		
Long term debt (note 3)	34,792	3,074
EXCESS OF ASSETS OVER LIABILITIES	$ 9,316	$ 7,372
OWNERSHIP EVIDENCED BY (note 4):		
Capital stock		
Authorized —		
9,500,000 common shares, par value of $1.00 each		
4,500,000 Class A shares, par value of $1.00 each		
Issued —		
6,241,552 common shares (4,521,321 shares in 1969)	$ 6,242	$ 2,261
224,374 Class A shares	224	—
	6,466	2,261
Premium less discount on shares issued for cash	2,850	5,111
Total	$ 9,316	$ 7,372

Approved on behalf of the Board:

R. D. ARMSTRONG, Director.

W. A. ARBUCKLE, Director.

Statement of Exploration, Development and Construction Expenditures

YEAR ENDED DECEMBER 31, 1970

($000's omitted)

	Balance Dec. 31, 1969	Expenditures During Year	Balance Dec. 31, 1970
Preliminary exploration and development	$ 7,400	$ —	$ 7,400
Land acquisitions	556	259	815
Housing	87	1,073	1,160
Mine development	453	1,566	2,019
Mine equipment	—	7,069	7,069
Engineering utilities and services	440	3,946	4,386
Crusher and concentrator	—	104	104
Tailings and water supply	—	136	136
Mill equipment	—	2,736	2,736
Miscellaneous construction costs	—	2,375	2,375
Administration	829	1,219	2,048
Interest and financing charges (note 3)	486	3,387	3,873
Total	$ 10,251	$ 23,870	$ 34,121

Represented by:

Plant and equipment less accumulated depreciation	$ 8,306
Construction in progress	10,897
Mining properties and preproduction expenditures including accumulated depreciation	14,918
	$ 34,121

Statement of Premium Less Discount on Shares Issued for Cash

YEAR ENDED DECEMBER 31, 1970

($000's omitted)

	1970	*1969*
BALANCE beginning of year	$ 5,111	*$ 5,111*
Less change due to reclassification of shares from 50¢ par value to no par value	5,111	—
	—	*5,111*
Add premium arising from reclassification of shares from no par value to $1 par value	2,850	—
BALANCE end of year	$ 2,850	*$ 5,111*

Statement of Source and Disposition of Funds

YEAR ENDED DECEMBER 31, 1970

($000's omitted)

SOURCE OF FUNDS:		
Units of 8½% Series A Income Debentures and shares		$ 23,600
Units of 8¾% Notes and shares		10,200
		33,800
DISPOSITION OF FUNDS:		
Plant and equipment		$ 7,135
Construction in progress		10,897
Mining properties and preproduction expenditures		5,838
		23,870
Repayment of loans from associated companies (net)		3,000
		26,870
Less charges not involving current outlay of funds:		
Value ascribed to share capital (note 3)	$ 1,945	
Accrued interest on long term debt	917	2,862
		24,008
INCREASE IN WORKING CAPITAL		$ 9,792

Notes to the Financial Statements

YEAR ENDED DECEMBER 31, 1970

1. CONVERSION OF UNITED STATES CURRENCY

Accounts in U.S. funds have been converted to Canadian funds on the following basis:

Plant and equipment and long term debt at exchange rates in effect at time of transactions.

2. PLANT AND EQUIPMENT, CONSTRUCTION IN PROGRESS AND MINING PROPERTIES AND PREPRODUCTION EXPENDITURES

The amounts shown represent costs to date and are not intended to reflect present or future values. Expenditures which have been included in either plant and equipment, construction in progress or mining properties and preproduction expenditures are subject to reallocation between these classifications on completion of the construction program. Certain changes in classification have been made in the 1969 figures to make them comparable to the allocations used in 1970.

Depreciation is being provided on certain fixed assets being used during the construction period on the straight line method based on the economic life of the assets. During the year ended December 31, 1970 depreciation in the amount of $204,019 was provided and is included in preproduction expenditures as shown below.

Plant and equipment consists of:	1970	1969
Buildings, machinery and equipment at cost	$ 8,509,665	$ 1,375,015
Less accumulated depreciation	204,019	—
	$ 8,305,646	$ 1,375,015

Mining properties and preproduction expenditures consist of:

	1970	1969
Mining properties at cost	$ 1,464,474	$ 1,205,201
Preproduction expenditures at cost	13,453,865	7,670,169
	$14,918,339	$ 8,875,370

3. LONG TERM DEBT

	1970	1969
8¾% Notes due as stated hereunder ($10,000,000 U.S. funds)	$10,200,000	$ —
8½% Series A Income Debentures due December 31, 1985	23,600,000	—
Accrued interest on income debentures and loans from associated companies	991,606	73,577
Loans from associated companies	—	3,000,000
	$34,791,606	$ 3,073,577

During the year the Company sold 10,000 Units under the terms of the Japanese Financing Agreement. Each Unit consisted of $1,000 (U.S. Funds) principal amount of Notes and 56,604 common shares of the Company and was sold at a price of $1,000 (U.S. Funds). Under the agreement a further 16,500 Units are to be sold in 1971. Repayment of the Notes is collaterally secured under a Trust Deed by the pledge of second mortgage bonds, secured by a second fixed and specific charge and a second floating charge on the assets of the Company. Repayment of principal is to commence 13 months after commencement of commercial production or 33 months after the last purchase of Units, whichever date is earlier. 90% of the Company's net operating profits as defined in the agreement are to be applied to the repayment of the Notes after the bank loans (referred to in note 5) are paid in full. The cumulative minimum annual repayments of principal required to be made are as follows (the first repayment is expected to occur in 1973):

Repayment Year	Cumulative Principal Repayments
1	$ 250,000 U.S.
2	500,000 U.S.
3	750,000 U.S.
4	1,000,000 U.S.
5	1,250,000 U.S.
6	8,350,000 U.S.
7	21,650,000 U.S.
8	26,500,000 U.S.

During the year the Company sold 23,600 Units under the terms of the Income Debenture and Share Purchase Agreement at a price of $1,000 per Unit. Each Unit consisted of $1,000 principal amount of Income Debentures and either 80 Common or Class A shares. The proceeds of the sale of the Units were used in the first instance to repay the loans from associated companies, amounting to $10,200,000, including $3,000,000 at December 31, 1969.

Interest on the Income Debentures will be deferred and paid in accordance with the terms of the Income Debenture and Share Purchase Agreement. Repayment of principal is to be made by way of annual sinking fund payments from all of the operating profits of the Company after (a) the bank loans have been paid in full, (b) the Notes under the Japanese Financing Agreement have been paid in full, and (c) accrued and deferred interest on the Income Debentures has been paid in full. The amount and timing of the required sinking fund payment is defined in the Income Debenture Indenture and is dependent on the operating profits of the Company together with certain other factors. The sinking fund payments are to be used to redeem the Income Debentures at par.

The accrued interest of $991,606 at December 31, 1970 may not be paid until the required interest and principal repayments have been made in accordance with the terms of the Bank Loan Agreement and the Japanese Financing Agreement.

During the year the Company issued 56,604 fully paid common shares comprised in Units sold under the Japanese Financing Agreement. It issued 1,699,200 fully paid Class A shares to Rio Algom Mines Limited and a further 188,800 fully paid common shares to The Yukon Consolidated Gold Corporation Limited as part of Units purchased by those companies under the Income Debenture and Share

Purchase Agreement. A value of $1,944,604 has been ascribed to the 1,944,604 common and Class A shares so issued, which amount is included in interest and financing charges on the statement of exploration, development and construction expenditures.

4. CAPITAL STOCK

	Common		Class A	
	Shares	Amount paid up	Shares	Amount paid up
Shares issued:				
At December 31, 1969:				
For mining properties	900,000	$ 450,000	—	$ —
For cash	3,621,321	1,810,660	—	—
	4,521,321	2,260,660	—	—
In 1970 (prior to changes in par value)	1	1	—	—
	4,521,322	2,260,661	—	—
Conversion to no par value shares Aug. 14, 1970	—	5,111,118	—	—
	4,521,322	7,371,779	—	—
Conversion to $1 par value shares Sept. 28, 1970	—	(2,850,457)	—	—
	4,521,322	4,521,322	—	—
For provision of finance equal to the par value of $1 per share (note 3)	245,404	245,404	1,699,200	1,699,200
	4,766,726	4,766,726	1,699,200	1,699,200
Conversion of Class A to common shares	1,474,826	1,474,826	(1,474,826)	(1,474,826)
Balance, Dec. 31, 1970	6,241,552	$6,241,552	224,374	$ 224,374

By special resolutions passed during 1970 the authorized capital was increased from 5,000,000 shares of a par value of 50¢ each to 14,000,000 shares of a par value of $1.00 each divided into 9,500,000 common shares and 4,500,000 Class A shares. The Class A shares are non-voting, are not entitled to dividends, and may be converted to common shares at any time at the option of the holder on the basis of one common share for each Class A share.

At December 31, 1970, 2,817,770 common shares were reserved:

(a) 2,624,374 common shares for issue in exchange for the 224,374 Class A shares issued and outstanding and for the 2,400,000 Class A shares which may be issued under the terms of the Construction and Management Agreement (of which 56,604 Class A shares were exchanged for common shares on January 27, 1971);

(b) 93,396 common shares for issue under the provisions of the Japanese Financing Agreement (of which 56,604 shares were issued on January 27, 1971);

(c) 100,000 common shares for issue under a Stock Option Plan. Options may be granted to employees of the Company and to certain employees of Rio Algom Mines Limited. Outstanding options have been granted to purchase 65,000 common shares at a price of $7.29 per share on or before September 27, 1976.

In addition 2,400,000 Class A shares are reserved to satisfy obligations of the Company which may arise under the provisions of the Construction and Management Agreement.

The Trust Deeds and Indentures prohibit the payment of dividends until all loans and accrued interest have been paid in full.

5. COMMITMENTS AND CONTINGENT LIABILITIES

(a) The total cash cost of the Lornex Project is now estimated at $133,000,000. Development and construction commitments outstanding at December 31, 1970 totalled approximately $15,700,000. Of the total cost some $41,200,000 has been received through the issue of capital stock, Income Debentures and Notes. A further $16,500,000 (U.S. Funds) is to be provided by the issue of Notes under the Japanese Financing Agreement and $60,000,000 is to be provided under the Bank Loan Agreement. It is anticipated that mortgages on employee facilities will provide an additional $4,000,000. Estimated project cost is some $9,400,000 higher than the original estimate of $123,600,000 primarily because of delays in the start-up date and other factors, and, because of the freeing of the Canadian dollar, the realization from the Japanese Financing Agreement will be approximately $1,600,000 less than originally calculated. These excess requirements may be provided, in whole or in part, by Rio Algom under the Construction and Management Agreement.

Under the Bank Loan Agreement three Canadian chartered banks have agreed to establish Capital Credits in favour of the Company in an aggregate amount of $60,000,000 and to advance that amount to the Company against the receipt of promissory notes of the Company. Repayment of these advances is collaterally secured under a Trust Deed by the pledge of first mortgage bonds, secured by a first fixed and specific charge and a first floating charge on the assets of the Company. Advances will be made primarily in U.S. Dollars, but the Company may draw up to $20,000,000 in Canadian Dollars. The interest rate on U.S. Dollar advances will be 1½% above the Eurodollar rate (as defined in the Bank Loan Agreement) adjustable semi-annually after the funds are advanced. The interest rate on Canadian Dollar advances will be 1¼% above the minimum commercial lending rate of each bank, adjustable from time to time by each bank independently.

Under the Construction and Management Agreement between the Company and Rio Algom Mines Limited, Rio Algom agreed to assume responsibility for the construction of the Lornex Project, to supervise and manage the business of the Company both during construction and thereafter for a period of at least 15 years from December 1, 1969, and to incur on behalf of the Company and to pay all defined construction period costs and operating period costs

incurred during the first four years following Commencement of Commercial Production. The Company has agreed to use the proceeds of financing and revenues from concentrate sales in the first instance to pay principal and interest on its loans and thereafter to reimburse Rio Algom for construction period costs and operating period costs incurred by Rio Algom on its behalf. In addition the Company has agreed to pay Rio Algom a management fee of $250,000 per annum commencing January 1, 1969.

If the funds available to the Company after payment of its primary obligations are insufficient to reimburse Rio Algom for construction period and operating period costs, Rio Algom may elect to postpone payment until after repayment of all amounts owing under the Bank Loan Agreement, Japanese Financing Agreement and Income Debenture Indenture or accept in lieu of payment, Units of Income Debentures of the Company in principal amount equal to the amount owing and Class A shares of the Company.

Rio Algom's obligation to do work or incur further expenses without being reimbursed in cash is suspended if construction period costs incurred exceed by $20,000,000 the amount for which Rio Algom has been reimbursed in cash, or, in the alternative, if construction period costs together with operating period costs in the aggregate exceed by $30,000,000 the amount for which Rio Algom has been reimbursed in cash until Rio Algom is satisfied that it will be reimbursed in cash by the Company for such work or expenses.

Each Unit issued to Rio Algom in lieu of repayment will consist of 80 Class A shares of the Company and an Income Debenture in the principal amount of $1,000.

(b) Under the terms of an agreement dated May 17, 1965 with Skeena Silver Mines Ltd. the Company agreed that if the production of ore from certain mining claims is economically feasible it will either:

(i) place the claims into production and pay Skeena 5% of the net smelter returns from any ore produced from those properties; or

(ii) if the Company decides not to place the claims into production it will pay Skeena $15,000 per annum commencing May 31, 1971.

In either case the maximum total amount payable to Skeena is $500,000.

6. REMUNERATION OF DIRECTORS AND SENIOR OFFICERS

During the year ended December 31, 1970 the aggregate direct remuneration paid or payable by the Company to the directors and senior officers of the Company was $132,986, including remuneration to a director of $3,200.

7. OTHER

Because of the change in the Company's year-end during 1969, from September 30 to December 31, an audited statement of source and disposition of funds for the year ended December 31, 1969 is not available. Accordingly, the attached statement of source and disposition of funds is not in comparative form.

Rio Algom

Rio Tinto

Printed in Canada.